

EVALUATION AND COMPARISON OF NUTRITIVE QUALITIES OF SOME SELECTED RICE VARIETIES AT JAFFNA PENINSULA IN SRI LANKA

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ABSTRACT

The study was undertaken to evaluate the nutritive qualities of twelve selected rice varieties cultivated in Jaffna peninsula of Sri Lanka. It includes both traditional and improved varieties. Furthermore, it is intended to identify useful correlation among different grain quality parameters. In these research nutritive qualities such as ash content, crude protein content, crude fat content, crude fiber content and starch content were determined by AOAC standard methods. Ash content, crude protein content, crude fat content, crude fiber content and starch content of selected varieties ranges between 1.175% to 2.475%, 6.33% 8.87%, 3.075% to 4.0%, 0.5% 1.65% and 82.80% to 86.96% respectively. In which 'Anilvarian' has lowest ash content and CO10 has the highest ash content. Crude protein content was highest for H4 and lowest for 'Periavellai'. Highest and lowest crude fat content value was observed in Bg358 and At353 respectively. 'Anilvarian' and H4 has lowest and highest crude fiber content. Starch content was highest for At358 and lowest for H4. Crude fiber content of brown rice was negatively correlated with cooked length breadth ratio ($r=-0.105$) and positively correlated with gruel solid loss ($r=0.080$).

Keywords: Nutritional quality, Rice varieties, Jaffna peninsula, Sri Lanka